



RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Impact Avoidance and Minimization Guidance

All applicants are required to avoid and minimize impacts to all wetlands including the perimeter wetland, riverbank wetland and floodplain. This means that you should do everything possible to stay out of the wetlands, or if the wetlands are unavoidable, you should do everything possible to limit the extent of alteration to the wetlands. The following recommendations may be helpful as you are designing your project.

For House Lots

- Avoid building in or near the wetland if at all possible, this includes the riverbank and perimeter wetlands.
- Move your house or building closer to the road. If necessary, you can apply for a variance from the town on the required setback in order to avoid the wetland.
- Reduce the size of the house to be built. Try building up instead of out.
- Design the garage to go underneath the house, if site conditions allow.
- Use retaining walls to reduce the amount of fill needed.
- If you cannot avoid the wetland, consider obtaining an easement from a neighbor to reduce wetland encroachment.
- Try to preserve the tree canopy as much as possible when constructing your driveway and/or yard.
- Remember to provide realistic limits of disturbance that will encompass all work that is to be done on the site. Consider room for construction vehicles and space for future maintenance (e.g. room to set up a ladder). Ten feet of clearance around a home is typically accepted.
- Create a thicker buffer by increasing plantings at the limit of disturbance to reduce noise and disturbance to wetland wildlife. Use 2-3 rows of plantings, instead of just one. A single row is preferable, however, if additional rows involve an increase in clearing or alteration. Often evergreens are especially good because they retain leaves all year.
- Avoid the use of any fertilizer, pesticides, herbicides, pollutants, chemical, or organic application within and/or adjacent to wetlands.

For Wetland Crossings

- The best thing to remember is to use something that will span as much of the wetland as possible.
- Instead of a simple box culvert, try using several box culverts, an arch culvert or a bridge. The greater the width of the wetland corridor that is preserved, the greater the chance it will stay as healthy habitat for plants and animals that depend on it.

- Consider spanning upland that is adjacent to the wetland edge to allow wildlife passage during high water periods.
- Find the narrowest wetland section possible – if a stream is 30 feet wide in one section, but only 10 feet wide in another, cross over the 10-foot section to reduce the disturbance.
- Try to utilize any existing roadways, paths or trails as much as possible by upgrading them and including new box culverts, arch culverts, or bridge installations.
- In some limited circumstances the use of retaining walls is helpful in narrowing crossings and reducing fill impacts by eliminating fill slopes.
- Preserve the existing tree canopy as much as possible in the crossing area.
- For driveway and roadway crossings, keeping close to existing grades can reduce fill amounts. Fill slopes are often preferable to retaining walls since they present less of a barrier to wildlife movement and can be replanted. Retaining walls can be used to avoid filling in sensitive habitats.

For Subdivisions

- Consider reducing the number of lots you are going to create – design an 8-lot subdivision instead of a 10-lot subdivision and avoid wetlands all together.
- Allow room in the design for lots to have usable yard space without the need for alteration of additional wetland in the future.
- Create the detention/retention basins completely outside of all wetland areas, including riverbank and perimeter wetlands.
- Reduce road shoulders and sidewalks at wetland crossings.
- Maintain existing drainage patterns wherever possible, for example by using multiple basins rather than one large basin. (Doing so will often minimize objections from downgradient abutters.)
- Consider infiltration of storm water runoff from planned impervious surfaces to offset losses in groundwater recharge, to lessen the size of detention basin(s), and to help maintain existing hydrology.
- Increase plantings, especially along wetland crossings, to reduce noise and disturbance and to provide replacement habitat for wildlife.